SEQUENCE LISTING

- <110> Vlaams Interuniversitair Instituut voor Biotechnol
- <120> Novel internal ribosome entry site, vector containing same a nd the uses thereof
- <130> 2676-4976US
- <150> 99200216.2
- <151> 1999-01-26
- <160> 51
- <170> PatentIn version 3.1
- <210> 1
- <211> 222
- <212> DNA
- <213> Homo sapiens
- <400> 1
- gacatcagcg acagcgagag gaagaccagc tcggccgagt cctcgtcagc agaatcaggc 60
- gaagaatcag aggaggaaga ggaaggaggaggaga ccggcagcaa ctctgaggag 180
- gcatcagagc agtctgccga agaagtaagt gaggaagaaa tg 222
- <210> 2
- <211> 222
- <212> RNA
- <213> Homo sapiens
- <400> 2
- gacaucageg acagegagag gaagaccage ueggeegagu eeuegucage agaaucagge 60
- gaagaaucag aggaggaaga ggaagaggag ccggcagcaa cucugaggag

```
gcaucagagc agucugccga agaaguaagu gaggaagaaa ug
<210>
<211>
      2471
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222>
      (906)..(1128)
<223> The IRES-activity containing sequence
<220>
<221> misc_feature
<222>
      (1)...(2471)
<223> PITSLRE protein kinase (p110pitslre) (isoform alfa2-2)
<400>
atacaggaag tgacgatact tttggcgcgc gcggttgctg tttcttctct ggctccqqqa
   60
ccggcggcgg cggcggcggc acgggcggcg gcgtagggtg ttttaactca aatgggtgat
  120
gaaaaggact cttggaaagt gaaaacttta gatgaaattc ttcaggaaaa gaaacgaagg
  180
aaggaacaag aggagaaagc agagataaaa cgcttaaaaa attctgatga ccgggattcc
aagcgggatt cccttgagga gggggagctg agagatcact gcatggagat cacaataagg
aactccccgt atagaagaga agactctatg gaagacagag gagaagaaga tgattctttg
  360
gccatcaaac caccccagca aatgtctcgg aaagaaaaag ttcatcacag aaaagatgaa
 420
aagagaaaag agaaaaagca tgctagagtg aagaagaaag aaagagagca cgaacgtcgg
```

aaacgacatc gagaagaaca ggataaagct cgccgggaat gggaaagaca gaagagaagg 540 gaaatggcaa gggagcattc caggagagaa agggggaatg atggcgtgtg cctcttcagg 600 gaccgcttgg agcagttaga aaggaagcgg gagcgggagc gcaagatgcg ggagcagcag 660 720 gaggcccgca gggaagtgtc tgcacatcac cgaacgatga gagaggacta cagcgacaaa 780 gtgaaagcca gccactggag tcgcagcccg cctcggccgc cgcgggagcg gttcgagttg ggagacggcc ggaagccagt aaaagaagag aaaatggaag aaagggacct gctgtccgac ttacaggaca tcagcgacag cgagaggaag accagctcgg ccgagtcctc gtcagcagaa 960 tcaggctcag gttctgagga agaagaggag gaggaggaag aggaggagga ggaagggagc 1020 accagtgaag aatcagagga ggaagaggaa gaggaggagg aggagaccgg cagcaactct 1080 gaggaggcat cagagcagtc tgccgaagaa gtaagtgagg aagaaatgag tgaagatgaa 1140 gaacgagaaa atgaaaacca cctcttggtt gttccagagt cacggttcga ccgagattcc 1200 ggggagagtg aagaagcaga ggaagaagtg ggtgagggaa cgccgcagag cagcgccctg acagagggcg actatgtgcc cgactcccct gccctgtcgc ccatcgagct caagcaggag ctgcccaagt acctgccggc cctgcagggc tgccggagcg tcgaggagtt ccagtgcctg 1380 aacaggatcg aggagggcac ctatggagtg gtctacagag caaaagacaa gaaaacagat

gaaattgtgg ctctaaagcg gctgaagatg gagaaggaga aggagggctt cccgatcacg 1500

tcgctgaggg agatcaacac catcctcaag gcccagcatc ccaacatcgt caccgttaga 1560

gagattgtgg tgggcagcaa catggacaag atctacatcg tgatgaacta tgtggagcac 1620

gacctcaaga gcctgatgga gaccatgaaa cagcccttcc tgccagggga ggtgaagacc 1680

ctgatgatcc agctgctgcg tggggtgaaa cacctgcacg acaactggat cctgcaccgt 1740

gacctcaaga cgtccaacct gctgctgagc cacgccggca tcctcaaggt gggtgacttc 1800

gggctggcgc gggagtacgg atcccctctg aaggcctaca ccccggtcgt ggtgaccctg 1860

tggtaccgcg ccccagagct gctgcttggt gccaaggaat actccacggc cgtggacatg 1920

tggtcagtgg gttgcatctt cggggagctg ctgactcaga agcctctgtt ccccgggaag 1980

tcagaaatcg atcagatcaa caaggtgttc aaggatctgg ggacccctag tgagaaaatc 2040

tggcccggct acagcgagct cccagcagtc aagaagatga ccttcagcag acacccctac 2100

aacaacetee geaagegett eggggetetg eteteagace agggettega eeteatgaae 2160

aagtteetga eetaetteee egggaggagg ateagegetg aggaeggeet eaageatgag 2220

tatttccgcg agaccccct ccccatcgac ccctccatgt tccccacgtg gcccgccaag 2280

agcgagcagc agcgtgtgaa gcggggcacc agcccgaggc cccctgaggg aggcctgggc 2340

tacagccagc tgggtgacga cgacctgaag gagacgggct tccaccttac caccacgaac 2400

cagggggcct ctgccgcggg ccccggcttc agcctcaagt tctgaaggtc agagtggacc

ccgtcatggg g 2471

<210> 4

2460

<211> 30

<212> DNA

<213> Homo sapiens

<400> 4

gacatcagcg acagcgagag gaagaccagc

<210> 5

<211> 468

<212> DNA

<213> Homo sapiens

<400> 5

cacgaacgtc ggaaacgaca tcgagaagaa caggataaag ctcgccggga atgggaaaga 60

cagaagagaa gggaaatggc aagggagcat tccaggagag aaagggggaa tgatggcgtg 120

tgcctcttca gggaccgctt ggagcagtta gaaaggaagc gggagcggga gcgcaagatg 180

cgggagcagc agaaggagca gcgggagcag aaggagcgcg agcggcgggc ggaggagcgg 240

cgcaaggagc gggaggcccg cagggaagtg tctgcacatc accgaacgat gagagaggac 300

tacagegaca aagtgaaage cagecactgg agtegeagee egeeteggee geegegggag 360

cggttcgagt tgggagacgg ccggaagcca gtaaaagaag agaaaatgga agaaagggac 420

ctgctgtccg acttacagga catcagcgac agcgagagga agaccagc

```
<210>
       6
 <211> 660
 <212> DNA
 <213> Homo sapiens
 <400>
cacgaacgtc ggaaacgaca tcgagaagaa caggataaag ctcgccggga atgggaaaga
    60
cagaagagaa gggaaatggc aagggagcat tccaggagag aaagggggaa tgatggcgtg
   120
tgcctcttca gggaccgctt ggagcagtta gaaaggaagc gggagcggga gcgcaagatg
cgggagcagc agaaggagca gcgggagcag aaggagcgcg agcgggggc ggaggagcgg
  240
cgcaaggagc gggaggcccg cagggaagtg tctgcacatc accgaacgat gagagaggac
  300
tacagcgaca aagtgaaagc cagccactgg agtcgcagcc cgcctcggcc gccgcgggag
  360
cggttcgagt tgggagacgg ccggaagcca gtaaaagaag agaaaatgga agaaagggac
  420
ctgctgtccg acttacagga catcagcgac agcgagagga agaccagctc ggccgagtcc
  480
tcgtcagcag aatcaggctc aggttctgag gaagaagagg aggaggagga agaggaggag
gaggaaggga gcaccagtga agaatcagag gaggaagagg aagaggagga ggaggagacc
ggcagcaact ctgaggaggc atcagagcag tctgccgaag aagtaagtga ggaagaaatg
  660
<210>
       7
<211>
       38
<212>
      DNA
<213>
      Artificial Sequence
<220>
<223>
      5' primer
```

```
<400>
            7
     tgctctagag gaattcgaag tgacgatact tttggcgc
     <210> 8
     <211> 42
     <212> DNA
     <213> Artificial Sequence
     <220>
     <223> 3' primer
     <400>
     tgctctagac caagcttcac gtccatcaag ccgacctcag aa
        42
<210> 9
<211> 30
    <212> DNA
<213> Artificial Sequence
    <220>
1 22
    <223> in frame NotI
15
<400>
           9
    agcctcaagt tcgcggccgc agagtggacc
30
I.T
- ===
    <210>
          10
    <211>
          21
    <212>
          DNA
    <213>
          Artificial Sequence
    <220>
    <223>
          primer
    <400>
          10
    gaggaagaag cgagtgaaga t
       21
    <210>
          11
    <211>
          22
    <212>
          DNA
   <213>
          Artificial Sequence
```

```
<220>
   <223>
          primer
    <400>
          11
    gacagcgaga aagaccagct cg
    <210>
          12
    <211>
          35
    <212> DNA
          Artificial Sequence
    <213>
    <220>
    <223>
          5'-end primer
           12
    <400>
    ctagtctaga aaagtgaaaa ctttagatga aattc
35
= ndr
<210>
          13
    <211>
          34
<212>
          DNA
Artificial Sequence
    <213>
    <220>
3'-end primer
    <223>
    <400> 13
    tgcatgccat ggatgtcgtt tccgacgttc gtgc
    <210>
          14
    <211>
          35
    <212>
          DNA
    <213>
          Artificial Sequence
    <220>
          3'-end primer
    <223>
    <400>
           14
    tgcatgccat ggtcctctct catcgttcgg tgatg
       35
```

```
15
    <210>
    <211>
          31
    <212>
         DNA
    <213> Artificial Sequence
    <220>
    <223>
          5'-end primer
    <400> 15
    gcacgaacgt cggaaacgac atctagacta g
       31
    <210> 16
    <211>
          35
    <212> DNA
    <213> Artificial Sequence
<220>
          5'-end primer antisense
    <223>
<400>
          16
    catgccatgg tcttcctctc gctgtcgctg atgtc
Ţ.
       35
    <210> 17
    <211>
          32
<212>
          DNA
          Artificial Sequence
    <213>
    <220>
    <223>
          5'-end primer sense
    <400>
         17
    ctagtctaga catcaccgaa cgatgagaga gg
       32
    <210>
          18
    <211> 40
    <212>
          DNA
    <213>
          Artificial Sequence
    <220>
    <223>
           5'-end primer sense
    <400>
          18
```

```
40
    <210>
          19
    <211>
          26
    <212> DNA
          Artificial Sequence
    <213>
    <220>
          double-stranded oligonucleotide
    <223>
    <400>
           19
    cgcgtggcga gattttcagg agtcac
       26
    <210>
           20
<211>
           26
    <212> DNA
4.
    <213> Artificial Sequence
i,n
    <220>
    <223> double-stranded oligonucleotide
<400>
           20
12
    tcgagtgact cctgaaaatc tcgcca
1
1
I
.,
    <210>
           21
    <211>
          40
- -3:
    <212> DNA
    <213> Artificial Sequence
    <220>
    <223> E-tag probe
    <400>
           21
    acgcggttcc agcggatccg gatacggctc cggcgcacct
    <210>
           22
```

<211>

<212> RNA

8

<213> Artificial Sequence

gacatcagcg acagcgagag gaagaccagc tctagactag

```
<220>
     <223> primer
     <400> 22
     crccaugg
         8
     <210> 23
     <211>
           9
     <212> RNA
    <213> Artificial Sequence
    <220>
    <223>
           primer
    <400> 23
    cucaaaugg
 9
<210>
           24
    <211>
    <212>
          RNA
    <213>
          Artificial Sequence
<220>
    <223>
          primer
<400> 24
    gggugauga
+ xd:
        9
   <210> 25
   <211>
          9
   <212>
          RNA
   <213>
          Artificial Sequence
   <220>
   <223>
          primer
   <400> 25
   uuuagauga
       9
   <210> 26
```

```
9
    <211>
    <212>
          RNA
    <213>
          Artificial Sequence
    <220>
    <223>
          primer
    <400>
          26
    uucugauga
        9
    <210> 27
    <211> 9
    <212> RNA
    <213> Artificial Sequence
    <220>
<223> primer
    <400> 27
acugcaugg
        9
<210> 28
    <211> 9
<212> RNA
    <213> Artificial Sequence
    <220>
    <223> primer
    <400>
          28
    acucuaugg
        9
    <210> 29
    <211> 9
    <212> RNA
    <213> Artificial Sequence
    <220>
    <223> primer
    <400> 29
    agaagauga
```

```
<210>
             30
     <211>
             9
     <212>
            RNA
     <213>
            Artificial Sequence
     <220>
     <223>
            primer
     <400>
            30
     agcaaaugu
         9
     <210>
            31
     <211>
            9
     <212>
            RNA
            Artificial Sequence
     <213>
 -
<220>
     <223>
            primer
     <400>
            31
13
    aaaagauga
9
    <210>
            32
    <211>
            9
122
    <212>
           RNA
    <213>
           Artificial Sequence
    <220>
    <223>
           primer
    <400>
           32
    aaagcaugc
        9
    <210>
           33
    <211>
           9
    <212>
           RNA
           Artificial Sequence
    <213>
    <220>
```

```
<223> primer
     <400> 33
     cgggaaugg
        9
     <210> 34
     <211> 9
     <212> RNA
     <213> Artificial Sequence
    <220>
    <223> primer
    <400>
           34
    gggaaaugg
        9
ı, 🗍
Ų.
    <210> 35
2 zd.
    <211> 9
I
    <212> RNA
Ţ
    <213> Artificial Sequence
1 10
    <220>
18
<223> primer
"Lj
    <400> 35
J.
    ggggaauga
9
- 1
    <210> 36
    <211>
          9
    <212> RNA
    <213>
          Artificial Sequence
    <220>
    <223>
          primer
    <400> 36
    gaaugaugg
        9
    <210>
           37
    <211>
           9
```

```
<212>
            RNA
     <213>
            Artificial Sequence
     <220>
     <223>
           primer
     <400> 37
     gcaagaugc
         9
     <210> 38
    <211> 9
    <212> RNA
    <213> Artificial Sequence
    <220>
<223>
           primer
    <400>
           38
    gaacgauga
121
J
        9
<210>
           39
    <211>
           9
13
<212>
          RNA
    <213>
          Artificial Sequence
<220>
    <223>
           primer
: 2
    <400>
           39
    agaaaaugg
        9
    <210>
           40
    <211>
           9
    <212>
          RNA
    <213>
          Artificial Sequence
   <220>
   <223>
          primer
   <400> 40
   aagaaauga
```

```
<210>
            41
     <211>
            36
     <212> DNA
     <213> Artificial Sequence
     <220>
     <223> primer
     <400>
            41
     tgaccggaat tcatgggtga tgaaaaggac tcttgg
        36
     <210> 42
     <211> 39
    <212> DNA
    <213> Artificial Sequence
.[]
    <220>
- 12.
    <223> primer
I.M
<400>
           42
    tgaccggaat tctgaccttc agaacttgag gctgaagcc
       39
T
    <210>
           43
H
    <211>
           30
<212> DNA
    <213> Artificial Sequence
    <220>
    <223>
          primer
    <400>
           43
    agcctcaagt tcgcggccgc agagtggacc
       30
    <210>
           44
    <211>
           21
    <212>
          DNA
   <213>
          Artificial Sequence
   <220>
   <223>
          primer
```

```
<400> 44
    gaggaagaag cgagtgaaga t
        21
    <210>
           45
    <211>
           22
    <212>
           DNA
    <213> Artificial Sequence
    <220>
    <223>
           primer
    <400>
          45
    gacagcgaga aagaccagct cg
<210>
           46
    <211>
           33
<212>
           DNA
    <213>
          Artificial Sequence
    <220>
    <223>
           primer
<400>
           46
H
    ttcttcatct tcacccatgg cttcctcact tac
Į,
::::
    <210>
           47
    <211>
           31
    <212>
           DNA
    <213>
           Artificial Sequence
    <220>
    <223>
          primer
    <400> 47
    ctagtctaga gcacgaacgt cggaaacgac a
       31
   <210>
           48
   <211>
           40
   <212>
          DNA
```

```
<213> Artificial Sequence
    <220>
    <223> primer
    <400>
           48
    ctagtctaga gacatcagcg acagcgagag gaagaccagc
    <210> 49
    <211> 35
    <212> DNA
    <213> Artificial Sequence
    <220>
    <223> primer
<400>
         49
    ccatcgatag aacctgagcc tgattctgct gacga
       35
-1
J
J
   <210> 50
   <211> 34
   <212>
          DNA
   <213> Artificial Sequence
<220>
   <223> primer
   <400>
          50
   ccatcgatac cggcagcaac tctgaggagg catc
      34
   <210>
          51
   <211>
         33
   <212>
          DNA
   <213>
          Artificial Sequence
   <220>
   <223>
         primer
   <400> 51
   ttcttcatct tcacccatgg cttcctcact tac
      33
```

Page 19

Sup

<110> Vlaams Interuniversitair Instituut voor Biotechnol

<120> Novel internal ribosome entry site, vector containing same and the uses thereof

<130> 2676-4976US

<150> 99200216.2

<151> 1999-01-26

<160> 51

<170> PatentIn version 3.1

<210> 1

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1

gacatcageg acagegagag gaagaccage teggeegagt cetegteage agaatcagge 60

gaagaatcag aggaggaaga ggaagaggag gaggaggaga ccggcagcaa ctctgaggag 180

gcatcag/agc agtctgccga agaagtaagt gaggaagaaa tg 222

<210 2

<21/1> 222

<\$12> RNA

<210> 3

<211> 2471

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (906)..(1128)

<223> The IRES-activity containing sequence

<220>

<221> misc feature

<222> (1)..(2471)

<223> PITSLRE protein kinase (p110pitslre) (isoform alfa2-2)

<400> 3
atacaggaag tgacgatact tttggcgcgc gcggttgctg tttcttctct ggctccggga 60
ccggcggcgg cggcggcggc acgggcggcg gcgtagggtg ttttaactca aatgggtgat 120
gaaaaggact cttggaaagt gaaaacttta gatgaaattc ttcaggaaaa gaaacgaagg 180
aaggaacaag aggagaaagc agagataaaa cgcttaaaaa attctgatga ccgggattcc 240
aagcgggatt cccttgagga gggggagctg agagatcact gcatggagat cacaataagg 300
aactccccgt atagaagaga agactctatg gaagacagag gagaagaaga tgattctttg 360

gccatcaaac caccccagca aatgtctcgg aaagaaaaag ttcatcacag aaaagatgaa 480 aagagaaaag agaaaaagca tgctagagtg aagaagaaag aaagagagca cgaacgtcgg 540 aaacgacatc gagaagaaca ggataaagct cgccgggaat gggaaagaca gaagagaagg gaaatggcaa gggagcattc caggagagaa agggggaatg atggcgtgtg cctcttcagg gaccgcttgg agcagttaga aaggaagcgg gagcgggagc gcaagatgcg ggagcagcag 660 aaggagcagc gggagcagaa ggagcgcgag cggcgggggggaggagcggcg caaggagcgg 720 gaggcccgca gggaagtgtc tgcacatcac cgaacgatga gagaggacta cagcgacaaa 780 840 gtgaaageea gecaetggag tegeageeeg eeteggeege egegggageg gttegagttg 900 ggagacggcc ggaagccagt aaaagaagag aaaatggaag aaagggacct gctgtccgac ttacaggaca tcagcgacag cgagaggaag accagctcgg ccgagtcctc gtcagcagaa 960 tcaggctcag gttctgagga agaaggagga gaggaggaag aggaggagga ggaagggagc 1020 accagtgaag aatcagagga ggaagaggaa gaggaggagg aggagaccgg cagcaactct 1080 gaggaggcat cagagcagtc tgccgaagaa gtaagtgagg aagaaatgag tgaagatgaa 1140 gaacgagaaa atgaaaacca cctcttggtt gttccagagt cacggttcga ccgagattcc 1200 ggggagagtg aagaagcaga ggaagaagtg ggtgagggaa cgccgcagag cagcgccctg 1260 acagagggg actatgtgcc cgactcccct gccctgtcgc ccatcgagct caagcaggag 1320 ctgcccaagt acctgccggc cctgcagggc tgccggagcg tcgaggagtt ccagtgcctg 1380 aacaggatcg aggagggcac ctatggagtg gtctacagag caaaagacaa gaaaacagat 1440 gaaattgtgg ctctaaagcg gctgaagatg gagaaggaga aggagggctt cccgatcacg 1500 tegetgaggg agateaacae cateeteaag geecageate ecaacategt eacegttaga 1560 gagattgtgg tgggcagcaa catggacaag atctacatcg tgatgaacta tgtggagcac 1620 gacctcaaga gcctgatgga gaccatgaaa cagcccttcc tgccagggga ggtgaagacc 1680 ctgatgatec agetgetgeg tggggtgaaa cacetgeaeg acaactggat cetgeaeegt 1740 gacctcaaga cgtccaacct getgetgage cacgccggca tcctcaaggt gggtgacttc 1800 gggctggcgc gggagtacgg atcccctctg aaggcctaca ccccggtcgt ggtgaccctg 1860 tggtaccgcg ccccagaget getgettggt gccaaggaat actccacggc cgtggacatg 1920 tggtcagtgg gttgcatctt cggggagctg ctgactcaga agcctctgtt ccccgggaag 1980 tcagaaatcg atcagatcaa caaggtgttc aaggatctgg ggacccctag tgagaaaatc 2040

tggcceggct acagcgagct cccagcagtc aagaagatga cettcagcag acacccctac 2100

aacaacctec gcaagcgett eggggctetg etetcagacc agggettega cetcatgaac 2160

aagtteetga cetaetteec egggaggagg atcagcgetg aggacggeet caagcatgag 2220

tattteegeg agacceccet ecceategae eeeteeatgt teeccaegtg geeegecaag 2280

agegageage agegtgtgaa geggggeace ageeegagge eeetegagg aggeetggge 2340

tacagcage tgggtgacga egacetgaag gagaeggget teeacettae eaceaegaac 2400

cagggggeet etgeegegg eeeeggette ageeteaagt tetgaaggte agagtggace 2460

cegteatggg g

<210> 4

<211> 30

<212> DNA

<213> Homo sapiens

<400> 4 gacatcagcg acagcgagag gaagaccagc

30

<210> 5

<211> 468

<212> DNA

<213> Homo sapiens

<400> 5
cacgaacgtc ggaaacgaca tcgagaagaa caggataaag ctcgccggga atgggaaaga 60
cagaagagaa gggaaatggc aagggagcat tccaggagag aaagggggaa tgatggcgtg 120
tgcctcttca gggaccgctt ggagcagtta gaaaggaagc gggagcggga gcgcaagatg 180
cgggagcagc agaaggagca gcgggagcag aaggagcgg agcgcaggaggagcgg 240
cgcaaggagc gggaggcccg cagggaagtg tctgcacatc accgaacgat gagaaggac 300
tacagcgaca aagtgaaagc cagccactgg agtcgcagc cgcctcggc gccgcggag 360
cggttcgagt tgggagacgg ccggaagcca gtaaaagaag agaaaatgga agaaaaggac 420

<210> 6

<211> 660

<212> DNA

<213> Homo sapiens

<400> 6 cacgaacgtc ggaaacgaca tcgagaagaa caggataaag ctcgccggga atgggaaaga 60 120 cagaagagaa gggaaatggc aagggagcat tccaggagag aaagggggaa tgatggcgtg tgcctcttca gggaccgctt ggagcagtta gaaaggaagc gggagcggga gcgcaagatg 180 cgggagcagc agaaggagca gcgggagcag aaggagcgc agcggcgggc ggaggagcgg 240 cgcaaggagc gggaggcccg cagggaagtg tctgcacatc accgaacgat gagagaggac 300 360 tacagcgaca aagtgaaagc cagccactgg agtcgcagcc cgcctcggcc gccgcgggag 420 cggttcgagt tgggagacgg ccggaagcca gtaaaagaag agaaaatgga agaaagggac ctgctgtccg acttacagga catcagcgac agcgagagga agaccagctc ggccgagtcc 480 tcgtcagcag aatcaggctc aggttctgag gaagaagagg aggaggagga agaggaggag 540 gaggaagga gcaccagtga agaatcagag gaggaagag aagaggagga ggaggagacc 600 ggcagcaact ctgaggaggc atcagagcag tctgccgaag aagtaagtga ggaagaaatg 660

<210> 7

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer

<400> 7

tgctctagag gaattcgaag tgacgatact tttggcgc

<210> 8	
<211> 42	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> 3' primer	
<400> 8 tgetetagae caagetteae gteeateaag eegaceteag a	a 42
<210> 9	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> in frame NotI	
<400> 9 agcctcaagt tcgcggccgc agagtggacc	30
<210> 10	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 10 gaggaagaag cgagtgaaga t	21
<210> 11	

<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 11 gacagegaga aagaccaget eg	22
<210> 12	
<211> 35	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> 5'-end primer	
<400> 12 ctagtctaga aaagtgaaaa ctttagatga aattc	35
<210> 13	
<211> 34	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> 3'-end primer	
<400> 13 tgcatgccat ggatgtcgtt tccgacgttc gtgc	34
<210> 14	
<211> 35	

	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> 3'-end primer	
	<400> 14 tgcatgccat ggtcctctct catcgttcgg tgatg	35
	<210> 15	
	<211> 31	
	<212> DNA	
	<213> Artificial Sequence	
S		
id id	<220>	
	<223> 5'-end primer	
	<400> 15 gcacgaacgt cggaaacgac atctagacta g	31
	<210> 16	
LN LN	<211> 35	
	<212> DNA	
•	<213> Artificial Sequence	
	<220>	
	<223> 5'-end primer antisense	
	<400> 16 catgccatgg tetteetete getgtegetg atgte	35
	<210> 17	
	<211> 32	
	<212> DNA	

<212> DNA

<213> Artificial Sequence

<213> Artificial Sequence		
<220>		
<223> 5'-end primer sense		
<400> 17 ctagtctaga catcaccgaa cgatgagaga gg	32	
<210> 18		
<211> 40		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> 5'-end primer sense		
<400> 18 gacatcagcg acagcgagag gaagaccagc tctagactag		40
<210> 19		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> double-stranded oligonucleotide		
<400> 19 cgcgtggcga gattttcagg agtcac	26	
<210> 20		
<211> 26		

	<220>		
	<223> double-stranded oligonucleotide		
	<400> 20 tcgagtgact cctgaaaatc tcgcca	26	
	<210> 21		
	<211> 40		
	<212> DNA		
	<213> Artificial Sequence		
*** <u> </u>	<220>		
13 13 . p.	<223> E-tag probe		
	<400> 21 acgcggttcc agcggatccg gatacggctc cggcgcacct		40
n 1	<210> 22		
	<211> 8		
Ų.	<212> RNA		
	<213> Artificial Sequence		
	<220>		
	<223> primer		
	<400> 22 crccaugg	8	
	<210> 23		
	<211> 9		
	<212> RNA		
	<213> Artificial Sequence		

<220>	
<223> primer	
<400> 23 cucaaaugg	9
<210> 24	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
 <223> primer	
<400> 24 gggugauga	9
<210> 25	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 25 uuuagauga	9
<210> 26	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	

<223> primer	
<400> 26 uucugauga	9
<210> 27	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 27 acugcaugg	9
<210> 28	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 28 acucuaugg	9
<210> 29	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	

<400> 29 agaagauga	9
<210> 30	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 30 agcaaaugu	9
<210> 31	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 31 aaaagauga	9
<210> 32	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 32	

uuug•uug		
<210> 33		
<211> 9		
<212> RNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 33		9
cgggaaugg		9
<210> 34		
<211> 9		
<212> RNA		
<213> Artificial Sequence		
<220>		
<223> primer		
<400> 34		9
gggaaaugg		
<210> 35		
<211> 9		
<212> RNA		
<213> Artificial Sequence		
<220>		
<223> primer		
	<211> 9 <212> RNA <213> Artificial Sequence <220> <223> primer <400> 33 cgggaaugg <210> 34 <211> 9 <212> RNA <213> Artificial Sequence <220> <223> primer <400> 34 gggaaaugg <210> 35 <211> 9 <212> RNA <210> 35 <211> 9 <212> RNA <213> Artificial Sequence <210> 35 <211> 9 <212> RNA <213> Artificial Sequence <220>	<211> 9 <212> RNA <213> Artificial Sequence <220> <223> primer <400> 33 cgggaaugg <210> 34 <211> 9 <212> RNA <213> Artificial Sequence <220> <223> primer <400> 34 gggaaaugg <210> 35 <211> 9 <212> RNA <213> Artificial Sequence <220> <223> primer <400> 34 gggaaaugg

aaagcaugc

<400> 35 ggggaauga

9

<210> 36	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 36 gaaugaugg	9
<210> 37	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 37 gcaagaugc	ç
<210> 38	
<211> 9	
<212> RNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 38 gaacgauga	9

- <210> 39
- <211> 9
- <212> RNA
- <213> Artificial Sequence
- <220>
- <223> primer
- <400> 39
- agaaaaugg
- <210> 40
- <211> 9
- <212> RNA
- <213> Artificial Sequence
- <220>
- <223> primer
- <400> 40
- aagaaauga
- <210> 41
- <211> 36
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> primer
- <400> 41
- tgaccggaat tcatgggtga tgaaaaggac tcttgg
- <210> 42

<211> 39	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 42 tgaccggaat tctgaccttc agaacttgag gctgaagcc	39
<210> 43	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 43 agcctcaagt tcgcggccgc agagtggacc	30
<210> 44	
<211> 21	•
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> primer	
<400> 44 gaggaagaag cgagtgaaga t	21
<210> 45	
<211> 22	

<212> DNA

<212> DNA		
<213> Artificia	l Sequence	
<220>		
<223> primer		
<400> 45 gacagcgaga aaga	accaget eg	22
<210> 46		
<211> 33		
<212> DNA		
<213> Artificia	l Sequence	
<220>		
<223> primer		
<400> 46 ttetteatet teaccea	atgg ctteeteact tae	33
<210> 47		
<211> 31		
<212> DNA		
<213> Artificia	l Sequence	
<220>		
<223> primer		
<400> 47 ctagtctaga gcacg	gaacgt cggaaacgac a	31
<210> 48		
<211> 40		

<213> Artificial Sequence

- <220>
- <223> primer
- <400> 48

ctagtctaga gacatcagcg acagcgagag gaagaccagc

40

35

34

- <210> 49
- <211> 35
- <212> DNA
- <213> Artificial Sequence
- <220>

. :ā:

- <223> primer
- <400> 49

ccatcgatag aacctgagec tgattctgct gacga

- <210> 50
- <211> 34
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> primer
- <400> 50

ccatcgatac cggcagcaac tctgaggagg catc

- <210> 51
- <211> 33
- <212> DNA
- <213> Artificial Sequence

<220>
<223> primer
<400> 51
ttetteatet teacceatgg etteeteact tae